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| | Туре | L # | Hits | Search Text | DBs | Time Stamp |
| 1 | BRS | L1 | 1140 | dasd\$ and flag\$5 | USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD B | 2003/12/27 10:34 |
| 2 | BRS | L2 | 873 | L1 and (@rlad<=19991109 or @ad<=19991109) | USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD B | 2003/12/27 10:35 |
| 3 | BRS | L3 | 181 | L2 and (two same stor\$4 and devic\$5) and (data adj set\$5) | USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD | 2003/12/27 10:36 |

12/27/2003, EAST Version: 1.4.1

| | Document ID | Issue Date | Title | Current OF | Current XRef | Inventor |
|-----|-------------------------|------------|--|------------|--|------------------------------------|
| 1 | US 20020073090 A1 | 20020613 | Method and apparatus for making independent data copies in a data processing system | 707/10 | | Kedem, Ishay et al. |
| 2 | US 6438654 B1 | 20020820 | Castout processing for duplexed cache structures | 711/133 | 711/141; 711/147; 711/150; 711/151 | Elko, David Arlen et al. · |
| 3 | US 6363385 B1 | 20020326 | Method and apparatus for making independent data copies in a data processing system | 707/10 | 707/201; 707/202; 707/204 | Kedem, Ishay et al. |
| 4 . | US 6272086 B1 | 20010807 | Low cost tamper-resistant method for write-once read many (WORM) storage | 369/53.21 | 369/13.02; 369/275.3; 369/47.5 | Jaquette, Glen Alan et al. |
| 5 | US 6266740 B1 | 20010724 | Device sequencing and placement protection using a digital signature | 711/114 | | Don, Arieh et al. |
| 6 | US 6240467 B1 | 20010529 | Input/output operation request handling in a multi-host system | 710/5 | 709/200; 710/3 | Beardsley, Brent Cameron et al. |
| 7 | US 6199146 B1 | 20010306 | Storage management system and method for increasing capacity utilization of nonvolatile storage devices using partially filled substitute storage devices for continuing write operations | 711/154 | 711/112; 711/161; 711/162; 711/165; 711/170; 711/4 | Pence, Jerry Wayne |
| 8 | US 6185638 B1 | 20010206 | Method and system for dynamically assigning addresses to an input/output device | 710/36 | 710/3; 710/7; 711/112; 711/200 | Beardsley, Brent Cameron et al. |
| 9 | US 6170023 B1 | 20010102 | System for accessing an input/output device using multiple addresses | 710/36 | 710/3; 710/7; 711/112; 711/200 | Beardsley, Brent Cameron et al. |
| 10 | US 6167459 A | 20001226 | System for reassigning alias addresses to an input/output device | | 710/9; 711/202; 711/203 | Beardsley, Brent Cameron et al. |
| 11 | US 5870725 A | 19990209 | High volume financial image media creation and display system and method | 705/45 | 705/44 | Bellinger, David T. et al. |
| 12 | US 5734861 A | 19980331 | Log-structured disk array with garbage collection regrouping of tracks to preserve seek affinity | 711/134 | 707/206; 710/56; 711/113; 711/136; 711/160; 711/165; 711/170; 711/4 | Cohn, Oded et al. |
| 13 | US 5732269 A | 19980324 | Data adapter transparent to application I/O path | 709/310 | 358/1.15; 710/1; 710/33 | Compton, Scott Brady et al. |
| 14 | US 5701502 A | 19971223 | Isolating a central processing unit from the operating system controlling said unit and its associated hardware for interaction of the unit with data handling apparatus alien to the operating system | | 709/1; 709/319; 710/110 | Baker, Ernest Dysart et al. |
| 15 | US 5581724 A | 19961203 | Dynamically mapped data storage subsystem having multiple open destage cylinders and method of managing that subsystem | 711/114 | 711/113; 711/153; 711/161; 714/6 | Belsan, Jay S. et al. |
| 16 | US 5506986 A | 19960409 | Media management system using historical data to access data sets from a plurality of data storage devices | 707/204 | 710/28; 711/111; 711/112; 711/136; 711/153; 711/160; 711/173 | Healy, Michael J. |
| 17 | US 5455926 A | 19951003 | Virtual addressing of · optical storage media as magnetic tape equivalents | 711/4 | 711/112; 711/202 | Keele, Richard V. et al. |

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|----|---------------------|------------|---|-----------|--|-----------------------------------|
| | Document II | Issue Date | Title | Current O | Current XRef | Inventor |
| 18 | US 5438674 A | 19950801 | Optical disk system emulating magnetic tape units | 711/4 | 703/23; 707/204; 707/205; 711/112; 711/202; 711/221 | Keele, Richard V. et al. |
| 19 | US 5403639 A | 19950404 | File server having snapshot application data groups | 707/204 | 707/205; 711/113; 711/114 | Belsan, Jay S. et al. |
| 20 | US 5388215 A | 19950207 | Uncoupling a central processing unit from its associated hardware for interaction with data handling apparatus alien to the operating system controlling said unit and hardware | 709/229 | 703/22; 703/27; 709/221; 709/227 | Baker, Ernest D. et al. |
| 21 | US 5369767 A | . 19941129 | Servicing interrupt requests in a data processing system without using the services of an operating system | 710/264 | | Dinwiddie, Jr., John M. et al. |
| 22 | US .5369749 A | 19941129 | Method and apparatus for the direct transfer of information between application programs running on distinct processors without utilizing the services of one or both operating systems | | 709/310; 710/1 | Baker, Ernest D. et |
| 23 | us 5363497 A | 19941108 | System for removing section of memory from first system and allocating to second system in a manner indiscernable to both operating systems | 711/153 | 709/216 | Baker, Ernest D. et al. |
| 24 | US 5325517 A | 19940628 | Fault tolerant data processing system | 714/11 | | Baker, Ernest D. et al. |
| 25 | US 5325505 F | 19940628 | Intelligent storage manager for data storage apparatus having simulation capability | 707/101 | 706/45; 706/934; 707/200 | Hoffecker, John C. et al. |
| 26 | US 5283868 F | 19940201 | Providing additional system characteristics to a data processing system through operations of an application program, transparently to the operating system | 709/227 | 709/246 | Baker, Ernest D. et |
| 27 | us 5239649 <i>a</i> | 19930824 | Channel path load balancing, through selection of storage volumes to be processed, for long running applications | 709/105 | 710/15; 710/18; 710/6 | McBride, Gregory E. et al. |
| 28 | US 5155809 A | 19921013 | Uncoupling a central processing unit from its associated hardware for interaction with data handling apparatus alien to the operating system controlling said unit and hardware | 709/227 | 709/201 | Baker, Ernest D. et |
| 29 | US 5144692 A | 19920901 | System for controlling access by first system to portion of main memory dedicated exclusively to second system to facilitate input/output processing via first system | 710/240 | 709/100; 710/1; 711/203 | Baker, Ernest D. et |
| 30 | US 5124987 A | 19920623 | Logical track write scheduling system for a parallel disk drive array data storage subsystem | 714/7 | | Milligan, Charles A. et al. |
| 31 | US 5113522 A | 19920512 | Data processing system with system resource management for itself and for an associated alien processor | 709/400 | 713/2; 714/10 | Dinwiddie, Jr., John M. et al. |
| 32 | US 5089958 A | 19920218 | Fault tolerant computer backup system | 714/5 | | Horton, James A. et al. |
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|----|------------|---------|------------|---|---------|---|--------------------------------|
| | Document | ID | Issue Date | • | Current | XRef | Inventor |
| 33 | US 4967353 | А | 19901030 | System for periodically reallocating page frames in memory based upon non-usage within a time period or after being allocated | 711/160 | | Brenner, Larry B. et al. |
| 34 | US 4945429 | Α | 19900731 | Data security arrangement for an automated magnetic tape cartridge library system | 360/92 | 198/349.6; 360/98.05; 369/34.01; 414/273; 700/215; 700/218 | |
| 35 | US 4918595 | Α | 19900417 | Subsystem input service for dynamically scheduling work for a computer system | 709/102 | 709/106; 709/310 | Kahn, Kenneth A. et al. |
| 36 | US 4771375 | A | 19880913 | Managing data storage devices connected to a digital computer | 711/111 | 711/165 | Beglin, Thomas W. et al. |
| 37 | US 4638425 | А | 19870120 | Peripheral data storage having access controls with error recovery | 711/133 | 711/162; 711/163; 711/173; 711/202; 714/10; 902/37 | Hartung, Michael H. |
| 38 | US 4638424 | A | 19870120 | Managing data storage devices connected to a digital computer | 711/117 | 711/112 | Beglin, Thomas W. et al. |
| 39 | US 4636946 | A | 19870113 | Method and apparatus for grouping asynchronous recording operations | 711/136 | 711/113; 711/114 | Hartung, Michael H. et al. |
| 40 | US 4633387 | Α | 19861230 | Load balancing in a multiunit system | 709/105 | 709/106 | Hartung, Michael H. et al. |
| 41 | US 4620295 | A | 19861028 | Method for accessing a data set in a word processing system | 715/531 | | Aiken, Jr., John A. |
| 42 | us 4607346 | A | 19860819 | Apparatus and method for placing data on a partitioned direct access storage device | 711/170 | 711/114; 711/172; 711/173 | Hill, Reed A. |
| 43 | us 4601012 | A | 19860715 | Zone partitioning in volume recovery system | 714/15 | | Aiken, Jr., John A. |
| 44 | US 4594674 | A | 19860610 | Generating and storing electronic fonts | 345/471 | 715/542 | Boulia, Dorothy I. et al. |
| 45 | US 4583166 | A | 19860415 | Roll mode for cached data storage | 711/113 | 711/142 | Hartung, Michael H. |
| 46 | US 4574346 | Б А | | Method and apparatus for peripheral data handling hierarchies | 711/117 | 711/112; 711/160 | Hartung, Michael H. |
| 47 | US 4533995 | A | | Method and system for handling sequential data in a hierarchical store | 711/122 | 711/113; 711/114 | Christian, John H. et al. |
| 48 | US 4500954 | A. | 19850219 | Cache bypass system with post-block transfer directory examinations for updating cache and/or maintaining bypass | 711/138 | 711/113 | Duke, Alan H. et al. |
| 49 | US 4499539 |) A | 19850212 | Method and apparatus for limiting allocated data-storage space in a data-storage unit | 707/205 | 711/112; 711/113; 711/171 | Vosacek, Robert H. |
| 50 | US 4430701 | . A | 19840207 | Method and apparatus for a hierarchical paging storage system | 711/119 | | Christian, John H. et al. |
| 51 | US 4403288 | A | 19830906 | Methods and apparatus for resetting peripheral devices addressable as a plurality of logical devices | 710/5 | | Christian, John H. et al. |
| 52 | US 4310883 | A | 19820112 | Method and apparatus for assigning data sets to virtual volumes in a mass store | 707/205 | | Clifton, Robert D. et al. |
| 53 | US 4053752 | ! A | 19771011 | Error recovery and control in a mass storage system | 714/710 | | DeJohn, Patrick Fred et al. |